

### REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 3-9, and 11-28 are currently pending. Claim 10 has been canceled without prejudice; and Claims 1, 3, 9, 13, 14, and 19 have been amended; and Claims 25-28 have been added by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claims 1, 3, 9, 11, and 13-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,751,196 to Hulyalkar et al. (hereinafter “the ‘196 patent”) in view of U.S. Patent Application Publication No. 2003/0210664 to Achour et al. (hereinafter “the ‘664 application”); and Claims 10 and 12 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.<sup>1</sup>

Amended Claim 1 is directed to a multi-hop communication system configured by a radio control station connected to a core network and a plurality of radio stations for relaying signals there between, wherein the radio control station comprises: (1) a control signal transmission/reception unit configured to transmit/receive a control signal having a lower bit rate than an information signal and for conducting communication with the plurality of radio stations; (2) an information signal transmission/reception unit configured to transmit/receive the information signal; and (3) a communication route determiner configured to determine a communication route through the multi-hop communication system for the control signal independently from a communication route through the multi-hop communication system for the information signal prior to conducting communication with the plurality of radio stations wherein the communication route determiner receives a usage inquiry from a radio station for

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<sup>1</sup> Applicants note that although Claim 13 was indicated as allowable, Applicants confirmed in a discussion with the Examiner on December 4, 2007, that Claim 13 was incorrectly listed as allowable.

inquiring usage of a communication channel handled by the radio control station and transmits/receives the information signal according to a usage notification that is a response to the usage inquiry. Further, Claim 1 clarifies that the radio station comprises a control signal transmission/reception unit configured to transmit/receive the control signal, and an information signal transmission/reception unit configured to transmit/receive the information signal. The changes to Claim 1 are supported by the originally filed specification and do not add new matter. In particular, Claim 1 has been amended to incorporate the limitation recited in Claim 10, which was indicated as allowable.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the Office Action asserts that the '196 patent discloses everything in Claim 1 with the exception of the control signal having a lower bit rate than the information signal, and relies on the '664 application to remedy that deficiency.

Applicants respectfully submit that the rejection of Claim 1 (and all associated dependent claims) is rendered moot by the present amendment to Claim 1. Claim 1 has been amended to clarify that the communication route the determiner receives a usage inquiry from a radio station for inquiring usage of a communication channel handled by the radio control station and transmits/receives the information signal according to the usage identification that is in response to the usage inquiry. Applicants respectfully submit that the combined teachings of the '196 patent and the '664 application fail to render obvious this limitation, as admitted by the outstanding Office Action. While the '196 patent discloses a wireless control plane link and a wireless user plane link, the '196 patent does not disclose the usage inquiry and usage notification recited in amended Claim 1. Accordingly, Applicants respectfully submit that amended Claim 1 is in condition for allowance.

Independent Claims 3, 9, and 19 recite limitations analogous to the limitations recited in Claim 1. Moreover, Claims 3 and 9 have been amended in a manner analogous to the

amendment to Claim 1. Further, Applicants note that Claim 19 already recites the steps of transmitting a usage inquiry from the radio station for inquiring usage of a communication channel handled by the radio control station using a control signal, and the step of transmitting from the radio station a usage notification indicating usage of the communication channel handled by the radio control station. Further, Claim 19 clarifies that the transmitting/receiving of the information signal to/from the radio station in the radio control station using the communication channel is determined based on the usage notification. Accordingly, Applicants respectfully submit that Claim 19 recites limitations analogous to the limitations recited in dependent Claim 10, which was indicated as allowable. Accordingly, for the reasons stated above, Applicants respectfully submit that Claim 19 is in condition for allowance.

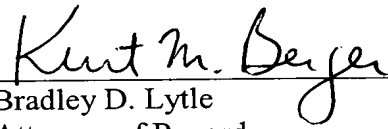
Thus, it is respectfully submitted that independent Claims 1, 3, 9, and 19 (and all associated dependent claims) patentably define over any proper combination of the '196 patent and the '664 application.

New dependent Claims 25-28, which depend from Claim 14, have been added to provide an additional scope of patent protection. New Claims 25-28 are supported by the originally filed specification and do not add new matter. See pages 16-24 of the specification.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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